

Claims

1. A non gelatin polymeric film, comprising a non gelatin polymer and a barrier composition comprising an organic acid or a salt of an organic acid.
2. A non gelatin film according to claim 1 wherein the film comprises one or more of HPMC, MHEC, HEC, EHEC, EC and/or MC.
3. A non gelatin polymeric film, comprising hydroxypropyl methyl cellulose and a barrier composition comprising an organic acid or a salt of an organic acid.
4. A hydroxypropyl methyl cellulose film, comprising hydroxypropyl methyl cellulose and a barrier composition comprising an organic acid or a salt of an organic acid.
5. A film according to claim 1, wherein the organic acid is a carboxylic acid.
6. A film according to claim 1 wherein, the organic acid comprises one or more of maleic acid, fumaric acid, adipic acid, citric acid, lactic acid.
7. A film according to claim 1 wherein the organic acid comprises citric acid.
8. A film according to claim 1 wherein the organic acid comprises malic acid.
9. A film according to claims 1-5 wherein the organic acid is present in the amount in the range 5 to 40% by weight of the total weight of the film.
10. A film according to claims 1-6 comprising about 23% by weight of organic acid and 77% by weight of HPMC.
11. A film according to any one of the preceding claims, wherein the film is foamed, expanded or gasified.
12. A film according to any one of the preceding claims wherein the film has a thickness of between 20 to 250 microns.
13. A film according to any one of the preceding claims, wherein the film is additionally treated with a solution comprising one or more acids as defined in any previous claim.

14. A 2-ply film made from the films according to any previous claim, wherein the 2 films are bonded to one another by a solution comprising one or more acids as defined in any previous claim and/or further treated with said acids.
15. A delivery capsule with an enclosing wall comprising a film of composition in accordance with any one of the preceding claims.
16. A method of producing HPMC film suitable for forming into a capsule, comprising treating the HPMC film with acids in any preceding claim, before and/or during when the film is formed into a capsule.
17. A delivery capsule, whose walls provide a continuous barrier for protecting and containing the capsule's contents, said barrier comprising:
 - a) a non-gelatin polymeric film
 - b) an organic acid
18. A delivery capsule as defined in claim 16, wherein the non-gelatin film comprises HPMC
19. A delivery capsule as defined in claim 16, wherein the organic acid is a carboxylic acid
20. A method of treating a non gelatin polymeric film comprising:
 - a) making a solution of one or more organic acids
 - b) applying said solution to the surface or surfaces of said film
21. A method of treating hpmc film comprising:
 - a) making a solution of one or more organic acids
 - b) applying said solution to the surface or surfaces of said film
22. A method of treating a hpmc film comprising:
 - a) making a solution of one or more carboxylic acids
 - b) applying said solution to the surface or surfaces of said film
23. A delivery capsule whose walls have adsorbed or absorbed, from the outer side of the walls, a barrier solution comprising one or more carboxylic acids
24. A delivery capsule whose walls have a gradation in concentration of one or more carboxylic acids, through the thickness of the wall

25. A delivery capsule whose walls have a gradation in concentration of one or more carboxylic acids, through the thickness of the wall, wherein the outerpart of the wall possesses the most concentration and the inner part of the wall possesses the most concentration
26. A delivery capsule whose walls have a gradation in concentration of one or more carboxylic acids, through the thickness of the wall, wherein the inner part of the wall possesses the most concentration and the outer part of the wall possesses the least concentration